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From: Cathy Marcinkevage - NOAA Federal
Sent: Thur 5/7/2015 4:25:05 PM
Subject: Fwd: DSM2 hydrodynamics summary methods for Thursday meeting
Cavallo et al 2015 Predicting juvenile Chinook Salmon routing in riverine and tidal channels EBF.pdf
Public Draft, Bay Delta Conservation Plan Appendix 5C, Flow, Passage, Salinity, and Turbidity, Part 1_Geo_SI_methods_excerpt.pdf
Apr2015 req032415 bio reviews DSM2 excerpt.pdf

Hello all --

Attached in information from Marin regarding a Delta hydrodynamics discussion we will have during our 10-12 call.

I think it goes without saying that you are not expected to have read it all by 10 am today.

Cathy

----- Forwarded message -----

From: **Greenwood, Marin** <Marin.Greenwood@icfi.com>
Date: Wed, May 6, 2015 at 10:06 AM
Subject: DSM2 hydrodynamics summary methods for Thursday meeting
To: "Cathy Marcinkevage (Cathy.Marcinkevage@noaa.gov)" <Cathy.Marcinkevage@noaa.gov>
Cc: Steve Zeug <stevez@fishsciences.net>, "Travis Hinkelman (travis.hinkelman@fishsciences.net)" <travis.hinkelman@fishsciences.net>, Brad Cavallo <bcavallo@fishsciences.net>

Hello Cathy, here is an outline for discussion during tomorrow's BDCP Section 7 NMFS Species Tech Team. Steve and Travis will call in at about 11.15 for the discussion (call-in details: [866-742-0530](tel:866-742-0530) Passcode: 6334173). Suggested items to be covered by this analysis are:

- Proportion of flow and proportion of time that flow enters key channel junctions (following methods of Cavallo et al. 2015, attached: Cavallo et al 2015 Predicting juvenile Chinook Salmon routing in riverine and tidal channels_EBF.pdf): Sutter Slough, Steamboat Slough, Georgiana Slough/Delta Cross Channel, Head of Old River, Turner Cut, Columbia Cut, Middle River, Old River, Fisherman's Cut, False

River, Jersey Point

- Proportion of positive flow in key channels (following methods used in DWR/Reclamation Biological Reviews associated with TUCP modification requests, attached: Apr2015_req032415_bio_reviews_DSM2_excerpt.pdf; e.g., density plots and associated summary statistics), including, but not limited to, DSM2 channels on:
 - Sacramento River upstream/downstream of the proposed north Delta intakes
 - Sacramento River downstream of Georgiana Slough
 - San Joaquin River downstream of Head of Old River
 - Old and Middle Rivers
- Velocity and flow in key channels (following methods used in DWR/Reclamation Biological Reviews associated with TUCP modification requests; e.g., density plots and associated summary statistics), including, but not limited to, DSM2 channels on:
 - Sacramento River upstream/downstream of the proposed north Delta intakes
 - San Joaquin River downstream of Head of Old River
 - Old and Middle Rivers
- Proportion of time reverse velocity in key channels exceeds sustainable swimming speeds of covered fishes, including, but not limited to, DSM2 channels on:
 - Sacramento River upstream/downstream of the proposed north Delta intakes
 - Sacramento River downstream of Georgiana Slough
 - San Joaquin River downstream of Head of Old River
 - Old and Middle Rivers

My initial suggestion for this is that the information should be divided by water-year type and month, for the December-June period. This would result in 35 comparisons for each of the measures above (7 months x 5 water-year types for comparing 2 scenarios).

The BDCP public draft included basic summaries of flow (mostly from CalSim), as well as an analysis of flow entering Georgiana Slough and reverse flow at that junction (attached: Public Draft, Bay Delta Conservation Plan_ Appendix 5C, Flow, Passage, Salinity, and Turbidity, Part 1_Geo_Sl_methods_excerpt.pdf). Parts of the above bullets would replace that analysis.

Speak to you tomorrow.

MARIN GREENWOOD

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